

Power PCB Relay

G5PA

G5PA Relay Is Ideal for TV and Audio Equipment Power Supplies

- Meets TV-5 standards required for TV and audio equipment power supplies.
- High sensitivity coil with low 250 mW power consumption.
- High impulse withstand surge of 10,000V.
- Double insulation construction assures high insulation capability.
- UL, CSA, SEMKO, and TUV approved.



Ordering Information

Type	Contact form	Model (semi-sealed)
Standard	SPST-NO	G5PA-1-8

How to Order

G5PA-1-8-DC__ *add coil rating*

Specifications

Contact Data

Type	Standard	
Load	Resistive (p.f. = 1)	Capacitive (TV) Load
Rated load	5A at 250 VAC; 5A at 30 VDC	100 A inrush (0.3-0.35 ms)/3 A steady state at 125 VAC
Contact material	AgSnO	
Carry current	5A	
Max. operating voltage	250 VAC, 30 VDC	
Max. operating current	5A	
Max. switching capacity	1,250 VA, 150 W	
Min. permissible load	100mA, 5 VDC	

■ Coil Data – Standard

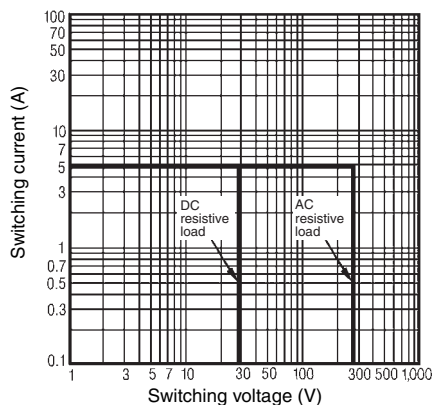
Rated voltage (VDC)	Rated current (mA)	Coil resistance (Ω)	Pickup voltage	Dropout voltage	Maximum voltage	Power consumption (approx.)
			(----- % of rated voltage -----)			
5	50.8	100	80% max.	10% min.	110% max.	250mW
9	27.8	324	80% max.	10% min.	110% max.	250mW
12	20.8	577	80% max.	10% min.	110% max.	250mW
24	10.4	2,310	80% max.	10% min.	110% max.	250mW

■ Characteristics

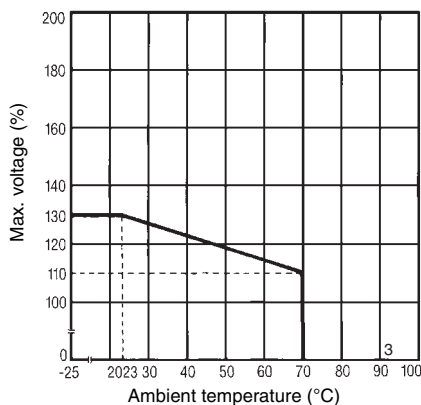
Contact resistance	100 m Ω max.	
Operate time	15 ms max.	
Release time	5 ms max.	
Insulation resistance	1,000 M Ω min. (at 500 VDC)	
Dielectric withstand voltage	4,000 VAC, 50/60 Hz for 1 minute between coil and contact 1,000 VAC, 50/60 Hz for 1 minute between contacts of same polarity	
Impulse withstand voltage	10,000 V, 1.2x50 μ s between coil and contact	
Vibration resistance	Destruction	10 to 55 Hz, 1.5-mm double amplitude for 2 hours
	Malfunction	10 to 55 Hz, 1.5-mm double amplitude for 5 minutes
Shock resistance	Destruction	1,000 m/s ² (approx. 100G)
	Malfunction	200 m/s ² (approx. 20G)
Life expectancy	Mechanical	1,000,000 operations min. (at 18,000 operations/hr)
	Electrical	80,000 operations min. with resistive load (reference value) 40,000 operations min. (under rated TV-Capacitive Load)
Ambient temperature	Operating	-40°C to 70°C (with no icing)
Ambient humidity	Operating	35% to 85%
Weight	Approx. 10g	

■ Characteristic Data

Max switching capacity



Ambient temperature vs. max. voltage



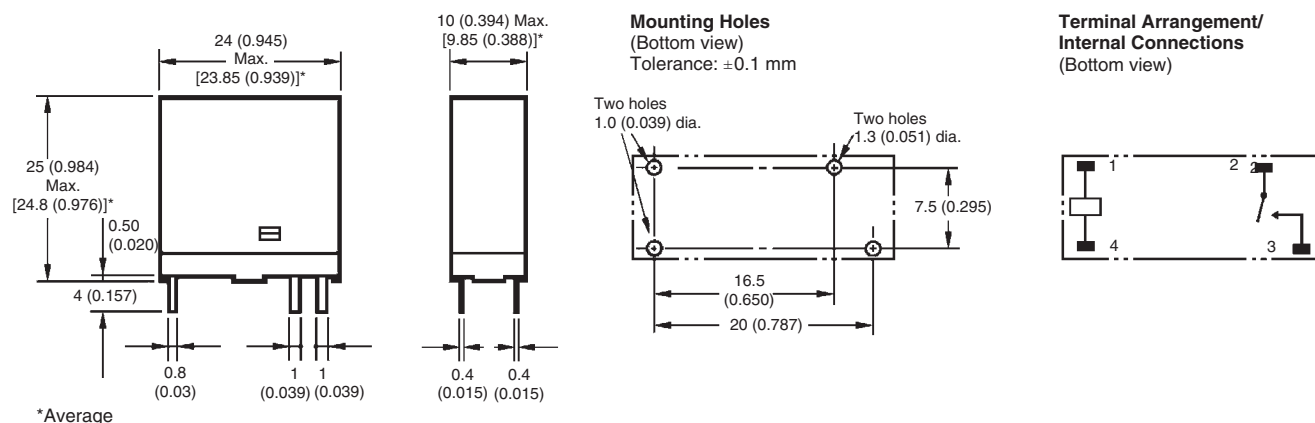
Note: The maximum voltage is the permissible peak voltage that can be imposed on the coil. The maximum voltage must not be imposed on the coil continuously.

Dimensions

Unit: mm (inch)

■ SPST-NO Type

G5PA-1



■ Approved Standards

UL (File No. E41515, UL508)

CSA (File No. LR31928, C22.2 No. 14)

Model	Coil ratings	Contact ratings	No. of test operations
G5PA-1	5 to 24 VDC	5 A, 277 VAC	30,000
		5 A, 30 VDC	6,000
		TV-5 rating	25,000

SEMKO (Certificate No. 9732043; EN60065)

Model	Coil ratings	Contact ratings	No. of test operations
G5PA-1	5 to 28 VDC	5 A/40 A, 250 VAC	10,000
		3 A/100A, 250 VAC	

TUV (Certificate No. R9650435, IEC255/VDE0435)

Model	Coil ratings	Contact ratings	No. of test operations
G5PA-1	5 to 24 VDC	5 A, 250 VAC	100,000
		($\cos\phi=1$)	
		5 A, 30 VDC	
		(L/R : 0 ms)	

ALL DIMENSIONS SHOWN ARE IN MILLIMETERS. To convert millimeters into inches, divide by 25.4

**OMRON ELECTRONICS LLC**

One Commerce Drive
Schaumburg, IL 60173

847-882-2288

OMRON CANADA, INC.

885 Milner Avenue
Toronto, Ontario M1B 5V8

416-286-6465

OMRON ON-LINE

Global - <http://www.omron.com>
USA - <http://www.omron.com/oei>
Canada - <http://www.omron.ca>